

- 37 -

## CLAIMS

1. A catalytic cellulignin fuel, characterized in that it is composed of cellulose and globulized lignin with specific surface of about 1.5 - 2.5 m<sup>2</sup>/g.

2. A catalytic cellulignin fuel according to claim 1, characterized in that it is composed of cellulose and globulized lignin with an average specific surface of about 2 m<sup>2</sup>/g.

Sub A1  
3. A cellulignin fuel according to claim 1 or 2, characterized in that it has a heat combustion value of about 18 to 20 MJ/kg.

4. A cellulignin fuel according to any one of claims 1 to 3, characterized in that it is ground into particles having size lower than 250 mm.

10 5. A cellulignin fuel according to any of the preceding claims, characterized in that it presents an ignition time equal to or shorter than 20 ms (0.02s).

6. A cellulignin fuel according to any one of the preceding claims, characterized in that it has a volatilization temperature of about 350° C.

15 7. A cellulignin fuel according to any one of the preceding claims, characterized by a Na + K content lower then or equal to 5 ppm.

8. A cellulignin fuel according to any one of the preceding claims, characterized in that it generates combustion gases with total particulates lower than 200 ppm, the particles having diameter lower than 5 nm at concentrations lower than 8 ppm.